Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. *Applicant/Contact name and address*: **Karnos Family Trust**
3715 E Kachina Drive
Phoenix, AZ 85044

2. *Type of action*: **Application for Beneficial Water Use Permit 43C 30023385**

3. *Water source name*: **Stillwater River**

4. *Location affected by project*: **NE SE SE of Section 21, Township 4 South, Range 16 East in Stillwater County. The place of use will be 3.5 acres on Tract 7 of COS No. 225442 in the same land description.**

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*:
The application proposes to install a 7.5 hp electric pump into the Stillwater River in order to divert 60 GPM up to 8.75 AF per year for the purpose of irrigating 3.5 acres of lawn and garden.

6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana Historic Preservation Office
Montana Department of Fish Wildlife & Parks (MFWP)
Montana Department of Environmental Quality (MDEQ)

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **-** *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: **The Stillwater River is listed as Periodically Dewatered from Cliff Swallow to Rosebud Creek. This proposed point of diversion is above Cliff Swallow. The use may contribute to dewatering of the Stillwater River particularly during peak irrigation times.**

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: **The construction of the diversion works along the bank of the Stillwater River may create water quality issues. It is expected the applicant will attain all the required Stillwater Conservation District, DEQ and Army Corp of Engineers permits before construction the diversion works in the Stillwater River. Considering the fertilizers, pesticides and herbicides commonly used for lawn and gardens and the proximity of the proposed place of use to the river it is a concern that this use will create runoff and water quality problems within the Stillwater River.**

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: **This proposed use of water should have no impact on groundwater quality or quantity in the area.**

DIVERSION WORKS *- Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: **The proposed diversion works include a small jetty like barrier built just upstream of the pump site with river boulders, a pipe and a 7.5 hp electric pump installed in the river. The pump is capable of diverting 60 GPM with 50 feet of lift. There will be channel impacts in the Stillwater River due to the construction of the diversion works. It is expected the applicant will comply with all Stillwater Conservation District, DEQ and Army Corp of Engineers permitting requirements before construction the diversion works in the Stillwater River.**

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: **The Montana Natural Heritage Program identified the Small Yellow Lady Slipper as the only species of concern within this project area. It is a vascular plant that is listed as a sensitive species. It is not expected that the development will adversely impact this species as land as the land owner is aware of the plants presence and takes appropriate precautions.**

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: **There are no wetlands within the project area, so there should be no impacts to wetlands from this proposed use.**

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: **There are no plans for a reservoir under this application.**

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: **This application proposes to irrigate 3.5 acres of lawn and garden that has never been irrigated before. The soils the applicant proposes to irrigate are Sebud and Lohler according to the Soil Survey of Stillwater County. These soils are primarily stony loam and clay loam in nature. These soils tend to have slow water intake and slow percolation. The salinity of these soils is generally less then 2 Mmhos/cm. There is little potential for saline seep if these soils are irrigated. Though, there is some potential for erosion due to runoff.**

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: **The applicant intends to irrigate land that has never been irrigated and naturally can only sustain prairie grass and small shrubs. Depending on the landscaping and construction planned by the applicant this use will likely be a major impact on vegetation. It's expected that the land owner will take an active roll in controlling the spread of noxious weeds during construction and use. It is also expected the land owner will seek to develop this land in a sustainable way.**

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: **There should be no deterioration of air quality or adverse effects on vegetation due to increased air pollutants from this proposed project.**

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: **The Montana Historic Preservation Office did not identify any archeological or historic sites of record in the proposed project area. This proposed use of water is not expected to have any significant impact on any historical or archeological sites in the area.**

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: **There should be no other significant impacts on other environmental resources of land, energy, and water from this proposed use.**

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: **This proposed use is not inconsistent with any locally adopted environmental plans and goals for Stillwater County.**

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: **Increased pressure on water resources due to this and other irrigators along the Stillwater River may cumulatively cause impacts on fish and riparian habitats that will affect recreation and wilderness activities. Development of this property up to the bank of the Stillwater River may negatively impact recreation access.**

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: **There should be no significant impact on human health from this proposed use.**

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

*Yes___ No_**X**__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: **No significant impact.**

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

1. Impacts on:

(a) Cultural uniqueness and diversity? **No significant impact**.

(*b) Local and state tax base and tax revenues?* **No significant impact.**

(c) *Existing land uses?* **This application proposes to irrigate land that has never been irrigated in the past. This will change the existing land use for these 3.5 acres.**

(d) *Quantity and distribution of employment?* **No significant impact.**

(e) *Distribution and density of population and housing?* **This development is part of the increased subdividing and construction in the historically rural areas of Montana.**

(f) *Demands for government services?* **No significant impact.**

(g) *Industrial and commercial activity?* **No significant impact.**

(h) *Utilities?* **No significant impact.**

(i) *Transportation?* **As more development takes place in historically rural areas there will be increased pressure on existing roadways and increased demand for new road construction and maintenance.**

(j) *Safety?* **No significant impact.**

(k) *Other appropriate social and economic circumstances?* **No significant impact.**

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: **The primary secondary impact of this project is the increased pressure on the Stillwater River during irrigation season. This will affect other irrigators and wildlife habitats that depend on the Stillwater River. Another possible secondary impact may be the runoff of fertilizer, pesticide, herbicide, and non-native plant seeds into the Stillwater River.**

Cumulative Impacts: **The cumulative impacts of this and other developments of the kind are increased pressure on the Stillwater River and increased turbidity and channel modification due to the construction of the diversion works. As more development of this kind takes place it may cause additional disputes and competition for water resources along the Stillwater River. In addition all development adjacent to a river particularly irrigation will cause increases in water pollution.**

3. *Describe any mitigation/stipulation measures:*

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

Because this is an elective development there are reasonable alternatives but the most obvious available alternative is the 'No Action' alternative. The 'No Action'

alternative would simply prevent the applicant from using the water for this purpose.

PART III. Conclusion

1. *Preferred Alternative:* **The preferred alternative is to allow the applicant to build the diversion works and to irrigate these 3.5 acres while expecting the applicant to take every reasonable conservation effort to minimize impacts.**

2. *Comments and Responses:* **None to report**

3. *Finding:* **None to report**

4. *Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action: **No significant environmental impacts were identified. No EIS is required.**

Name of person(s) responsible for preparation of EA:

Name: **Tim Lewis**
Title: **Water Resources Specialist**
Date: **October 3, 2006**